UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

NOV 21 2013

Mr. Gordon Reynolds
Director of Environmental Affairs
Harvard University Environmental Health, Safety and Emergency Management
46 Blackstone Street
Cambridge, Massachusetts 02139

Re: PCB Cleanup and Disposal Approval under 40 CFR §§ 761.61(a) and (c) and § 761.79(h)
Cambridge Trust Company
Holyoke Center
Cambridge, Massachusetts

Dear Mr. Reynolds:

This is in response to the President and Fellows of Harvard College (Harvard) Notification[1] for approval of a proposed plan to address PCB contamination located in the section of the Holyoke Center known as Cambridge Trust Company (the Site) at 1350 Massachusetts Avenue, Cambridge, Massachusetts. The Site contains PCB-contaminated materials that exceed the allowable PCB levels under 40 CFR § 761.20(a), § 761.61, and § 761.62. Specifically, PCBs have been found in caulk and glazing, and in the adjacent building substrate (e.g., concrete and brick).

In its Notification Harvard has proposed the following PCB cleanup and disposal plan:

- Remove all PCB caulk and glazing, and associated window/door frames in areas 1 and 3, along with the slate cladding panels found in area 3. Dispose as a greater than or equal to (≥) 50 parts per million (ppm) PCB waste in a RCRA hazardous waste landfill in accordance with 40 CFR § 761.62(a);

- Remove residual caulk by lightly grinding the *porous surfaces* remaining in place;

[1] The Notification was prepared by Woodard & Curran on behalf of the President and Fellows of Harvard College (Harvard) to satisfy the requirements under 40 CFR §§ 761.61(a) and (c). Information was submitted dated August 16, 2013 (PCB Remediation Plan) and November 07, 2013 (email response to EPA questions concerning sampling). These submittal shall be referred to as the "Notification".

- Prior to encapsulation, conduct PCB verification sampling of the decontaminated *porous surfaces;*

- Encapsulate the *porous surfaces* located directly within the former frame footprint with an epoxy coating and collect post-encapsulation verification samples; and,

- Prepare a long-term monitoring and maintenance implementation plan (MMIP) and a deed notice if PCB concentrations greater than (>) 1 ppm remain at the Site.

As a pilot test, on September 17 and 19, 2013, the caulking and sealants, along with the glass pane, frame and slate cladding components were removed from area 2 for disposal as greater than or equal to (≥) 50 ppm waste. Following removal, the concrete and granite that were in contact with the caulk/glazing were lightly ground to remove any residual caulk. Samples were collected from the adjacent *porous surfaces* (i.e., concrete and granite).

Based on the EPA's review, the information provided in the Notification meets the requirements under § 761.62(a) and § 761.79(h) for abatement of PCB caulk and § 761.61(a) and (c) for decontamination and/or encapsulation of the *porous surfaces*. Harvard may proceed with its project in areas 1, 2, and 3 in accordance with 40 CFR §§ 761.61(a) and (c); § 761.62(a); § 761.79(h); its Notification; and, this Approval, subject to the conditions of Attachment 1.

As indicated in the Notification, additional sampling may be needed to delineate the > 1 ppm PCB-contaminated areas. EPA is requiring that the results of this sampling be submitted to EPA with Harvard's proposed approach for management and/or cleanup of these PCBs (See Attachment 1, Condition 1).

Under this Approval, EPA is reserving its rights to require additional cleanup and/or mitigation measures should the results of the long-term sampling indicate that an unreasonable risk to building users remains following the abatement activities.

Questions and correspondence regarding this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

EPA shall not consider this project complete until it has received all submittals required under this Approval. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with 40 CFR Part 761, the Notification, and this Approval.

Sincerely,

James T. Owens III, Director
Office of Site Remediation & Restoration

cc Jeffrey Hamel, Woodard & Curran
MassDEP - Boston
File

Attachment 1 – PCB Approval Conditions

ATTACHMENT 1:

PCB CLEANUP AND DISPOSAL APPROVAL CONDITIONS
CAMBRIDGE TRUST COMPANY (the Site)
HARVARD UNIVERSITY
1350 MASSACHUSETTS AVENUE
CAMBRIDGE, MASSACHUSETTS

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the *PCB bulk product waste* and the *PCB remediation waste* located at the Site and identified in the Notification.

   a. The President and Fellows of Harvard College (Harvard) shall submit the results of the additional characterization sampling for *porous surfaces* to EPA for review and approval prior to initiating cleanup of the PCBs associated with these materials.

   b. A plan describing the cleanup, including disposal of the wastes, shall also be included. Harvard may submit this plan as a modification to the Notification in accordance with Condition 16 of this Approval.

2. Harvard shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.

3. In the event that the cleanup plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.

4. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.

5. Harvard must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, Harvard shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.

6. Harvard is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time Harvard has or receives information indicating that Harvard or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within 24 hours of having or receiving the information.

7. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by Harvard are authorized to conduct the activities set forth in the Notification. Harvard is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.

8. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release Harvard from compliance with any applicable requirements of federal, state or local law; or 3) release Harvard from liability for, or otherwise resolve, any violations of federal, state or local law.

9. Failure to comply with the Approval conditions specified herein shall constitute a violation of the requirement in § 761.50(a) to store or dispose of PCB waste in accordance with 40 CFR Part 761 Subpart D.

NOTIFICATION AND CERTIFICATION CONDITIONS

10. This Approval may be revoked if the EPA does not receive written notification from Harvard of its acceptance of the conditions of this Approval within 10 business days of receipt.

11. Harvard shall submit the following information for EPA review and/or approval:

    a. a certification signed by its selected abatement/demolition contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval; and,

    b. a certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical method requirements and quality assurance requirements specified in the Notification and in this Approval.

DECONTAMINATION AND DISPOSAL CONDITIONS

12. To the maximum extent practical, engineering controls, such as barriers, and removal techniques, such as the use of HEPA ventilated tools, shall be utilized during removal processes. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.

13. All visible residues of PCB-contaminated caulk and glazing (i.e., *PCB bulk product waste*) shall be removed as described in the Notification.

    a. The cleanup standard for *porous surfaces* shall be less than or equal to (≤) 1 part per million (ppm).

        i) Verification sampling for decontaminated *porous surfaces* shall be performed on a bulk basis (i.e., mg/kg) and reported on a dry weight analysis. Verification sampling for *porous surfaces* shall be conducted in accordance with the EPA Region 1 *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs) Revision 4, May 5, 2011*, at a maximum depth interval of 0.5 inches.

        ii) Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction/analytical method(s) is validated according to Subpart Q.

    b. In the event that the ≤ 1 ppm cleanup standard for *porous surfaces* cannot be met the following contingency shall be implemented:

        i) *Porous surfaces* in direct contact with *PCB bulk product waste* shall be encapsulated using an epoxy coating, applied within the former frame footprint.

        ii) Wipe sampling of the encapsulated *porous surfaces* shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e. µg/100 cm^2). Chemical extraction for PCBs shall be conducted using Method 3500B/3540C of SW-846 and chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another method(s) is validated according to Subpart Q. The laboratory reporting limit shall be ≤ 1 µg/100 cm^2.

        iii) Submit for EPA's review and approval, a monitoring and maintenance implementation plan (MMIP) for the encapsulated surfaces.

iv) Record a deed restriction in accordance with § 761.61(a)(8)(i)(A) since PCBs concentrations greater than (>) 1 ppm will remain on-site.

14. PCB waste (at any concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with CFR 40 CFR § 761.40; stored in a manner consistent with 40 CFR § 761.65; and, disposed of in accordance with 40 CFR § 761.61 or § 761.62, unless otherwise specified below.

a. Decontamination wastes and residues shall be disposed of in accordance with 40 CFR § 761.79(g)(6).

b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

c. PCB-contaminated water generated during decontamination shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.60.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

15. Harvard shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by Harvard to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.

16. Any modification(s) in the plan, specifications, or information submitted by Harvard, contained in the Notification, and forming the basis upon which this Approval has been issued, must receive prior written approval from the EPA. Harvard shall inform the EPA of any modification, in writing, at least ten (10) days prior to such change. No action may be taken to implement any such modification unless the EPA has approved of the modification, in writing. The EPA may request additional information in order to determine whether to approve the modification.

17. If such modification involves a change in the use of the Site which results in exposures not considered in the Notification, the EPA may revoke, suspend, and/or modify this Approval upon finding that this risk-based cleanup and disposal action may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information needed from Harvard to make a determination regarding potential risk.

18. Any misrepresentation or omission of any material fact in the Notification or in any records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

19. Within 60 days of completion of the work authorized under this Approval, Harvard shall submit for EPA's review and approval, a detailed MMIP for the surface encapsulants and barriers, as applicable. Harvard shall incorporate any changes to the MMIP required by EPA.

    a. The MMIP shall include: a description of the activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities; sampling protocols, sampling frequency, and analytical criteria; and reporting requirements.

    b. The MMIP shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users, including building users, other on-site workers, and interested stakeholders.

    c. The MMIP also shall include a worker training component for maintenance workers or for any person that will be conducting work that could impact the building coatings/barriers.

    d. Harvard shall submit the results of these long-term monitoring and maintenance activities to EPA. Based on its review of the results, EPA may determine that modification to the MMIP is necessary in order to monitor and/or evaluate the long-term effectiveness of the coatings and/or barriers.

    e. Activities required under the MMIP shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.

    f. A copy of the MMIP shall be attached to the deed restriction, see Condition 22.

RECORDKEEPING AND REPORTING CONDITIONS

20. Harvard shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the cleanup and disposal and the analytical sampling shall be established and maintained by Harvard in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection to authorized representatives of EPA.

21. Harvard shall submit a final report as both a hard copy and electronic version, to the EPA within 60 days of completion of the activities authorized under this Approval. At a minimum, this final report shall include: a short narrative of the project activities with photo-documentation; characterization and confirmation sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of; copies of manifests and bills of lading; and copies of certificates of disposal or similar certifications issued by the disposer.

22. Within 60 days of completion of the cleanup activities described in the Notification and authorized by this Approval, and as required under §761.61(a)(8)(i)(B), Harvard shall submit to EPA a certification, signed by an approving official, that it has recorded the notation on the deed as required under §761.61(a)(8)(i)(A). A copy of the notation on the deed must also be submitted.

    a. In the event that Harvard is able to achieve a PCB cleanup standard of < 1 ppm, the deed recordation and certification requirements shall not apply.

23. Required submittals shall be mailed to:

    Kimberly N. Tisa, PCB Coordinator
    United States Environmental Protection Agency
    5 Post Office Square, Suite 100 – (OSRR07-2)
    Boston, Massachusetts 02109-3912
    Telephone: (617) 918-1527
    Facsimile: (617) 918-0527

24. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self-disclosure or penalty policies.

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END OF ATTACHMENT 1